



STIC Search Report

EIC 2600

STIC Database Tracking Number: 110449

TO: Suhan Ni
Location: PK2 8B45
Art Unit: 2643
Thursday, December 18, 2003

Case Serial Number: 09/680429

From: Pamela Reynolds
Location: EIC 2600
PK2-3C03
Phone: 306-0255

Pamela.Reynolds@uspto.gov

Search Notes

Dear Suhan Ni,

Please find attached the search results for 09/680429. I used the search strategy we discussed. I searched the standard Dialog files, IBM TDBs, Proquest, the wayback machine, and the internet.

I am also looking through issues of Cycle World and will contact cycle shops to see if any helmets were designed with speakers before 12-8-1999.

I will be on vacation from Dec. 20th until Jan. 1, 2004. I will return Jan. 2, 2004.

If you would like a re-focus please let me know.

Thank you.

Pamela Reynolds





STIC Search Results Feedback Form

EIC 2600

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Pamela Reynolds, EIC 2600 Team Leader
306-0255, CPK2-3C03

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example: 2612

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC 2600 CPK2 3C03



File 344:Chinese Patents Abs Aug 1985-2003/Nov
(c) 2003 European Patent Office
File 347:JAPIO Oct 1976-2003/Aug(Updated 031202)
(c) 2003 JPO & JAPIO
File 348:EUROPEAN PATENTS 1978-2003/Nov W05
(c) 2003 European Patent Office
File 349:PCT FULLTEXT 1979-2002/UB=20031211,UT=20031204
(c) 2003 WIPO/Univentio
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200381
(c) 2003 Thomson Derwent
? ds

Set	Items	Description
S1	1069	AU=(TABATA, H? OR TABATA H?)
S2	18	S1 AND SPEAKER??
S3	12	S2 AND HELMET?
S4	4	S3 AND PIEZO?

4/5,K/1 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

06884582 **Image available**

PIEZO FILM SPEAKER AND SPEAKER BUILT-IN HELMET EQUIPPED WITH IT

PUB. NO.: 2001-112090 [JP 2001112090 A]
PUBLISHED: April 20, 2001 (20010420)
INVENTOR(s): OKUBO YASUSHI
OMURA RYUJI
TABATA HAJIME
APPLICANT(s): TYCO ELECTRONICS AMP KK
HONDA MOTOR CO LTD
APPL. NO.: 11-288148 [JP 99288148]
FILED: October 08, 1999 (19991008)
INTL CLASS: H04R-017/00; A42B-003/30; H04R-001/10

ABSTRACT

PROBLEM TO BE SOLVED: To provide a piezo film **speaker** that can reproduce sound with high sound quality and sufficient sound pressure at which a bikeler rider can surely listen to the sound even during driving in the case of mounting the **speaker** in a **helmet** for the two-wheel rider and to provide a **speaker** built-in **helmet** equipped with the **speaker** .
SOLUTION: A radius of curvature (R) of a curved part formed when the **piezo** film **speaker** is bent unidirectionally and supported is made at least larger than 200 mm and preferably to be 210 mm=R(360 mm).

COPYRIGHT: (C)2001,JPO

PIEZO FILM SPEAKER AND SPEAKER BUILT-IN HELMET EQUIPPED WITH IT

INVENTOR(s): OKUBO YASUSHI
OMURA RYUJI
TABATA HAJIME

ABSTRACT

PROBLEM TO BE SOLVED: To provide a piezo film **speaker** that can reproduce sound with high sound quality and sufficient sound pressure at which a...

... can surely listen to the sound even during driving in the case of mounting the **speaker** in a **helmet** for the two-wheel rider and to provide a **speaker** built-in **helmet** equipped with the **speaker** .

SOLUTION: A radius of curvature (R) of a curved part formed when the **piezo** film **speaker** is bent unidirectionally and supported is made at least larger than 200 mm and preferably...

4/5,K/2 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

06859080 **Image available**

LOUDSPEAKER BUILT-IN HELMET AND LOUDSPEAKER FOR THE HELMET

PUB. NO.: 2001-086582 [JP 2001086582 A]
PUBLISHED: March 30, 2001 (20010330)
INVENTOR(s): TABATA HAJIME
KATAYAMA MUTSUMI

APPLICANT(s): HONDA MOTOR CO LTD
APPL. NO.: 11-255330 [JP 99255330]
FILED: September 09, 1999 (19990909)
INTL CLASS: H04R-001/10; A42B-003/04

ABSTRACT

PROBLEM TO BE SOLVED: To provide a loudspeaker for a **helmet** that is configured to support a **piezo -film speaker** in a way that its capability can sufficiently be enhanced and a **speaker** built-in **helmet** using it.

SOLUTION: The loudspeaker for a **helmet** is configured by layering the **piezo -film speaker** 201, a frame 202 that supports the **piezo -film speaker** along its outer edge, and a laminate film 203 that protects the **piezo -film speaker**. In order to support the **piezo -film speaker** with a prescribed curved shape (its radius of curvature is 210-360 mm), the cross sectional shape of the frame 202 along its lengthwise direction is formed to be a curve with a radius of curvature of 210-360 mm.

COPYRIGHT: (C)2001,JPO

LOUDSPEAKER BUILT-IN **HELMET** AND LOUDSPEAKER FOR THE **HELMET**

INVENTOR(s): **TABATA HAJIME**
KATAYAMA MUTSUMI

ABSTRACT

PROBLEM TO BE SOLVED: To provide a loudspeaker for a **helmet** that is configured to support a **piezo -film speaker** in a way that its capability can sufficiently be enhanced and a **speaker** built-in **helmet** using it.

SOLUTION: The loudspeaker for a **helmet** is configured by layering the **piezo -film speaker** 201, a frame 202 that supports the **piezo -film speaker** along its outer edge, and a laminate film 203 that protects the **piezo -film speaker**. In order to support the **piezo -film speaker** with a prescribed curved shape (its radius of curvature is 210-360 mm), the cross...

4/5,K/3 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014181181 **Image available**

WPI Acc No: 2002-001878/200201

XRPX Acc No: N02-001392

Speaker used in helmet , has frame with opening-like film supporting section, for holding piezo film speaker

Patent Assignee: HONDA GIKEN KOGYO KK (HOND); HONDA MOTOR CO LTD (HOND)

Inventor: KATAYAMA M; **TABATA H**

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001086582	A	20010330	JP 99255330	A	19990909	200201 B
DE 10043913	A1	20010613	DE 1043913	A	20000906	200201

Priority Applications (No Type Date): JP 99255330 A 19990909

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2001086582	A	7	H04R-001/10	
DE 10043913	A1		H04R-017/00	

Abstract (Basic): JP 2001086582 A

NOVELTY - The center portion of frame (202) has an opening-like film supporting section, for holding **piezo film speaker** (201) along its outer edge.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for **helmet** .

USE - In **helmets** .

ADVANTAGE - The **piezo film speaker** is stably fixed in desired position within **helmet** .

DESCRIPTION OF DRAWING(S) - The figure shows the assembly drawing of **speaker** .

Piezo film speaker (201)

Frame (202)

pp; 7 DwgNo 3/12

Title Terms: **SPEAKER ; HELMET ; FRAME; OPEN; FILM; SUPPORT; SECTION; HOLD ; PIEZO ; FILM; SPEAKER**

Derwent Class: P21; V06; X27

International Patent Class (Main): H04R-001/10; H04R-017/00

International Patent Class (Additional): A42B-003/00; A42B-003/04; H04R-001/02

File Segment: EPI; EngPI

Speaker used in helmet , has frame with opening-like film supporting section, for holding piezo film speaker
...Inventor: **TABATA H**

Abstract (Basic):

... The center portion of frame (202) has an opening-like film supporting section, for holding **piezo film speaker** (201) along its outer edge.

... An INDEPENDENT CLAIM is also included for **helmet** .

...In **helmets** .

...The **piezo film speaker** is stably fixed in desired position within **helmet** .

...The figure shows the assembly drawing of **speaker** .

... **Piezo film speaker** (201

Title Terms: **SPEAKER ;**

4/5,K/4 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

013888285 **Image available**

WPI Acc No: 2001-372498/200139

XRPX Acc No: N01-272579

Piezoelectric element for speaker in helmet , has curved flat piezoelectric film provided within speaker , with its radius of curvature lesser than specific value

Patent Assignee: HONDA GIKEN KOGYO KK (HOND); HONDA MOTOR CO LTD (HOND)
; NIPPON AMP KK (AMPI)

Inventor: **TABATA H**

Number of Countries: 003 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2001112090	A	20010420	JP 99288148	A	19991008	200139 B
FR 2801163	A1	20010518	FR 200012794	A	20001006	200139
DE 10049492	A1	20010517	DE 1049492	A	20001006	200139

Priority Applications (No Type Date): JP 99288148 A 19991008

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2001112090	A		6	H04R-017/00	
FR 2801163	A1			H04R-017/00	
DE 10049492	A1			H04R-017/00	

Abstract (Basic): JP 2001112090 A

NOVELTY - The **piezoelectric** element comprises a flat **piezoelectric** film provided in **speaker** . The radius of curvature of film arranged within **speaker** in curved manner is higher than 200 mm.

USE - For **speaker** built within **helmet** .

ADVANTAGE - Aids in high quality acoustic signal reproduction even during vehicle transit.

DESCRIPTION OF DRAWING(S) - The figure shows the sectional view of **helmet** .

pp; 6 DwgNo 1/5

Title Terms: **PIEZOELECTRIC** ; ELEMENT; **SPEAKER** ; **HELMET** ; CURVE; FLAT; **PIEZOELECTRIC** ; FILM; **SPEAKER** ; RADIUS; CURVE; SPECIFIC; VALUE

Derwent Class: P21; V06

International Patent Class (Main): H04R-017/00

International Patent Class (Additional): A42B-003/30; H04R-001/10

File Segment: EPI; EngPI

Piezoelectric element for speaker in helmet , has curved flat piezoelectric film provided within speaker , with its radius of curvature lesser than specific value

Inventor: **TABATA H**

Abstract (Basic):

... The **piezoelectric** element comprises a flat **piezoelectric** film provided in **speaker** . The radius of curvature of film arranged within **speaker** in curved manner is higher than 200 mm.

... For **speaker** built within **helmet** .

...The figure shows the sectional view of **helmet** .

Title Terms: **PIEZOELECTRIC** ;

?

File 2:INSPEC 1969-2003/Dec W1
(c) 2003 Institution of Electrical Engineers
File 6:NTIS 1964-2003/Dec W2
(c) 2003 NTIS, Intl Cpyrght All Rights Res
File 8:Ei Compendex(R) 1970-2003/Dec W1
(c) 2003 Elsevier Eng. Info. Inc.
File 34:SciSearch(R) Cited Ref Sci 1990-2003/Dec W1
(c) 2003 Inst for Sci Info
File 35:Dissertation Abs Online 1861-2003/Nov
(c) 2003 ProQuest Info&Learning
File 62:SPIN(R) 1975-2003/Nov W1
(c) 2003 American Institute of Physics
File 65:Inside Conferences 1993-2003/Dec W2
(c) 2003 BLDSC all rts. reserv.
File 94:JICST-EPlus 1985-2003/Dec W2
(c)2003 Japan Science and Tech Corp(JST)
File 95:TEME-Technology & Management 1989-2003/Nov W5
(c) 2003 FIZ TECHNIK
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Nov
(c) 2003 The HW Wilson Co.
File 144:Pascal 1973-2003/Dec W1
(c) 2003 INIST/CNRS
File 239:Mathsci 1940-2003/Jan
(c) 2003 American Mathematical Society
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
(c) 1998 Inst for Sci Info
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
(c) 2002 The Gale Group
File 603:Newspaper Abstracts 1984-1988
(c)2001 ProQuest Info&Learning
File 483:Newspaper Abs Daily 1986-2003/Dec 16
(c) 2003 ProQuest Info&Learning
File 248:PIRA 1975-2003/Dec W2
(c) 2003 Pira International
? ds

Set	Items	Description
S1	104866	(AUDIO OR STEREO) (3N) (SPEAKER??) OR LOUDSPEAKER? OR LOUD()- SPEAKER? OR SPEAKER??
S2	573	S1 AND (PIEZO? OR PIEZO?(3N) FILM?)
S3	10461	40CENTIMETER? OR (40 OR FORTY) () (CM OR CENTIMETER?)
S4	2784	S3 AND (SURFACE? OR SIZE)
S5	15327	HELMET?
S6	1242273	MOTORCYCLE? OR CYCLE?
S7	6242	(LOCAT? OR PLAC? OR NEAR OR OVER) AND EARS
S8	632	(BUILT() INTO OR EMBED? OR INSERT? OR MOLD? OR AFFIXED OR F- IXED) AND S5
S9	103525	S1 NOT MAGNET?
S10	17157	VOICE AND QUALITY
S11	1877	AU=(TABATA, H? OR TABATA H?)
S12	0	S2 AND S3
S13	0	S2 AND S8
S14	1	S2 AND S7
S15	2	S2 AND S6
S16	2	RD S15 (unique items)
S17	2	S16 NOT S14
S18	6	S1 AND S8
S19	6	S18 NOT (S14 OR S16)
S20	6	RD S19 (unique items)
S21	2	S1 AND S11
S22	2	RD S21 (unique items)

14/3,K/1 (Item 1 from file: 95)
DIALOG(R) File 95:TEME-Technology & Management
(c) 2003 FIZ TECHNIK. All rts. reserv.

00953919 E96026200048

Dome-shaped diaphragm microtransducers

(Kuppelfoermige Diaphragmamikrowandler)

Hong Zhang; Eun Sok Kim

Univ. of Hawaii, Honolulu, USA

1995 IEEE Micro Electro Mechanical Systems, Proc., Amsterdam, NL, Jan 29 -
Feb 2, 1995

Document type: Conference paper Language: English

Record type: Abstract

ISBN: 0-7803-2504-4

ABSTRACT:

The authors present a novel idea using dome-shaped diaphragms for **piezoelectric** microphones, pressure sensors, and microspeakers. Dome-shaped diaphragm microtransducers are built on a thin, dome...

...nitride diaphragm (a few micron thick and a few mm in radius) with electrodes and **piezoelectric** ZnO **film**. Dome-shaped diaphragm transducers possess unique features, not shared by flat diaphragm transducers, due to

...capable of detecting the magnitude and the direction of an incoming acoustic wave, like human **ears**. They present a theoretical study for such microphone. Three major equations are developed for signal read-out on three different positions **over** a hemispherical surface of a dome microphone. Also they describe the fabricated dome-shaped diaphragm...

...mechanical resonant frequency of a dome-shaped diaphragm depends on static differential pressure, they describe **piezoelectric** pressure sensors (to sense static pressure) made with a dome diaphragm. Finally, they show that...

DESCRIPTORS: DIAPHRAGMS; **PIEZOELECTRIC** TRANSDUCERS; PRESSURE GAUGES; MICROPHONES; **LOUDSPEAKERS**; DIRECTIONAL CHARACTERISTICS; SILICON NITRIDE; ZINC OXIDES; MICROELECTRODES

IDENTIFIERS: **piezoelektrischer** Mikrowandler; kuppelfoermiges Diaphragma
?

17/3,K/1 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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0796148 NTIS Accession Number: AD-A076 952/1/XAB

Development of PVF2 Lightweight Portable Loudspeaker

(Final technical rept)

Mackiernan, D. W.

J M R Systems Corp., Salem, NH.

Corp. Source Codes: 063396000; 391850

Sponsor: Army Communications Research and Development Command, Fort Monmouth, NJ

Report No.: 1R879; CORADCOM-77-0179-F

Sep 79 19p

Languages: English

Journal Announcement: GRAI8005

Order this product from NTIS by: phone at 1-800-553-NTIS (U.S. customers); (703)605-6000 (other countries); fax at (703)321-8547; and email at orders@ntis.fedworld.gov. NTIS is located at 5285 Port Royal Road, Springfield, VA, 22161, USA.

NTIS Prices: PC A02/MF A01

Development of PVF2 Lightweight Portable Loudspeaker

A PVF2 Loudspeaker is described which is very lightweight and delivers 85 dB SPL across the 400-4000 cycle audio band, for use with radio sets AN/PRC-77 and AN/PRC-70 which...

...and power for the transducer. The diaphragm is made of 4 sheets of PVF2, a piezoelectric film with both sides coated with a thin aluminum film which was found to be very...

...a capacitive load to the amplifier requiring considerable power from the radio batteries, therefore, the loudspeaker is considered not suitable for man-pack battery operation. (Author)

Descriptors: Loudspeakers ; Manportable equipment; Electroacoustic transducers; Power supplies; Amplifiers; Fluorides; Polyvinylidenes; Polymeric films; Circuit analysis; Schematic diagrams

17/3,K/2 (Item 1 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily

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06811356 SUPPLIER NUMBER: 113286970

A Somersault! Live From the Womb, a 3-D Performance

McCLAIN, DYLAN LOEB

New York Times, p G.7

Apr 11, 2002

ISSN: 0362-4331

NEWSPAPER CODE: NYT

DOCUMENT TYPE: Commentary; Newspaper article

LANGUAGE: English

RECORD TYPE: ABSTRACT

ABSTRACT: Ultrasound machines use sound waves at frequencies of 1 million to 20 million hertz, or cycles per second, far above the audible range. Frequencies toward the low end of the ultrasound...

...is flowing. The 128 transducers in a typical array are made from ceramic that has piezoelectric qualities. When a voltage is applied and removed, the material alternately compresses and expands, acting like a tiny speaker. When reflected ultrasound waves hit the ceramic and compress it,

20/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

03154417 INSPEC Abstract Number: B88041533

Title: Two meters aboard the Winnebiko (mobile radio system)

Author(s): Roberts, S.

Journal: 73 Amateur Radio no.330 p.12-13

Publication Date: March 1988 Country of Publication: USA

CODEN: AMRAE5 ISSN: 0745-080X

Language: English

Subfile: B

...Abstract: and it drives a Larsen half-wave antenna. Audio is fed to either the console **speaker** or an earpiece **built into the helmet**, and voice input is either a TT-mike plugged into the front panel or a...

...Identifiers: **loudspeaker** ; ...

... **helmet** ;

20/3,K/2 (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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1609840 NTIS Accession Number: N91-30906/2

Evaluating the Effectiveness of Active Noise Reduction in Flight Helmets

Forshaw, S. E. ; Rylands, J. M. ; Crabtree, R. B.

Defence and Civil Inst. of Environmental Medicine, Downsview (Ontario).

Corp. Source Codes: 062120000; DG855253

Sponsor: National Aeronautics and Space Administration, Washington, DC.

Report No.: DCIEM-88-RR-34; CTN-91-60217

Aug 88 43p

Languages: English

Journal Announcement: GRAI9201; STAR2922

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NTIS Prices: PC A03

Evaluating the Effectiveness of Active Noise Reduction in Flight Helmets

The advent of high powered **fixed** - and rotary-wing aircraft and tracked armoured fighting vehicles has increased the level of noise...

... inside a circumaural device and cancelling it by means of negative feedback through a miniature **speaker** inside the enclosed volume. This study was carried out to investigate laboratory procedures appropriate for ...

20/3,K/3 (Item 1 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily

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07348054 SUPPLIER NUMBER: 377797421

Buyer's Edge: SALES TAX HOLIDAY: Tax vacation SHOPPERS, GET A 4-DAY BREAK AND PLAY THE SAVINGS GAME

ECKSTEIN, SANDRA

Atlanta Journal - Constitution, p C.1

Jul 31, 2003

NEWSPAPER CODE: ALJC

DOCUMENT TYPE: News; Newspaper article

LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: mittens, bathing suits, belts, coats, diapers (adult, baby, cloth and disposable), employee uniforms, football pads, **helmets**, hosiery, corsets, waders, bras, coveralls, antique clothing TAXED: Computers MP3 players, computer games for recreation...

...FREE: Computers Computer cables, printers, blank CDs, Web cameras, monitors, keyboards, mouse, zip drives, computer **speakers**, memory, microphones, modems, motherboards, scanners, nonrecreational software, storage devices Illustration of a game spinner showing...

...garden) Graduation caps and gowns (except rented) Gym suits Hats and caps Hand muffs Headbands **Helmets** (bike, baseball, football, hockey, motorcycle, sports) Hosiery, including support hosiery Hunting vests Jackets Jeans Jogging...

...goggles Receiving blankets Repair of clothing or footwear Safety glasses Shaving kits and bags Shoe **inserts** and laces Shoulder pads (for dresses, jackets, etc.)

20/3,K/4 (Item 2 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily

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06970352 SUPPLIER NUMBER: 158156461

Surrounded by a Whirl of Bodies, Collins Keeps His Head on Straight

Olney, Buster

New York Times, p 1

Sep 2, 2002

ISSN: 0362-4331 NEWSPAPER CODE: NYT

DOCUMENT TYPE: Feature; Newspaper article

LANGUAGE: English RECORD TYPE: ABSTRACT

ABSTRACT: Through the **speakers built into** the sides of his **helmet**, [Kerry Collins] hears the play call from the Giants' offensive coordinator, Sean Payton, within 10...

20/3,K/5 (Item 3 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily

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04811777

Celebrating Fuller to the Fullest, at Last; Movies: Directors Guild

memorial provides the praise that had largely eluded the late director during his pioneering Hollywood years.

Thomas, Kevin

Los Angeles Times, Sec F, p 1, col 4

Nov 24, 1997

ISSN: 0458-3035 NEWSPAPER CODE: LA

DOCUMENT TYPE: Feature; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Long (18+ col inches)

...ABSTRACT: Fuller's co-writer on "White Dog," Hanson expertly selected

clips that were interwoven with **speakers** , all of whom clearly cared for Fuller, who died Oct. 30 at his Hollywood Hills...

...colleagues and critics for his taut, vital and psychologically complex war pictures like "The Steel **Helmet** " and " **Fixed** Bayonets," westerns like "I Shot Jesse James," "Run of the Arrow" and "Forty Guns" and...

20/3,K/6 (Item 4 from file: 483)
DIALOG(R)File 483:Newspaper Abs Daily
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04407308

It Ads Up to Genius; Believe it or not, we are in the middle of an artistic renaissance. No, not in television. In television commercials. The evidence is worth watching.

Ahrens, Frank

Washington Post, Sec F, p 1, col 1

Jan 26, 1997

ISSN: 0190-8286 NEWSPAPER CODE: WP

DOCUMENT TYPE: Feature; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Long (18+ col inches)

...ABSTRACT: do. In them, nearly anything is possible. The theme to "Top Gun" blares from two **speakers** **affixed** to the wall above the computers. Its beat drives the commercial. On the screen to...

...created for "Star Wars" -- fly out of a huge orange sun. They wear flight goggles, **helmets** and parachutes, like World War II pilots. Instead of searching for Nazi fighters or fuel...
?

22/3,K/1 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

03036189 JICST ACCESSION NUMBER: 96A0852525 FILE SEGMENT: JICST-E
Worldwide Trends in the R&D Activities on Advanced Ceramics.
TORII YASUYOSHI (1); **TABATA HIDEYO** (2)
(1) National Ind. Res. Inst. Nagoya; (2) Ind. Technol. Center of Wakayama
Prefect.
Seramikku(Ceramics Japan), 1996, VOL.31,NO.9, PAGE.773-778
JOURNAL NUMBER: S0291AAW ISSN NO: 0009-031X CODEN: SERAA
UNIVERSAL DECIMAL CLASSIFICATION: 666.3/.6
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Commentary
MEDIA TYPE: Printed Publication

; **TABATA HIDEYO** (2)
...ABSTRACT: ceramic international workshop which was held in Inuyama City,
Aichi Prefecture in March 1996. The **speakers** of the invitation
lectures are from 8 countries : Japan, Italy, Belgium, China,
Netherlands (EU), Korea...

22/3,K/2 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2003 Japan Science and Tech Corp(JST). All rts. reserv.

01646373 JICST ACCESSION NUMBER: 92A0806860 FILE SEGMENT: JICST-E
A development of the digital mixing console for broadcasting.
YAMADA MICHIO (1); KURIHARA NOBUYOSHI (1); YAMAGAMI JUN'ICHI (1); **TABATA
HARUHIKO** (1)
(1) NHK
Terebijon Gakkai Gijutsu Hokoku, 1992, VOL.16,NO.57(BFO92 27-31),
PAGE.17-22, FIG.8
JOURNAL NUMBER: S0209AAF ISSN NO: 0386-4227
UNIVERSAL DECIMAL CLASSIFICATION: 621.397+654.197
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
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MEDIA TYPE: Printed Publication

YAMADA MICHIO (1); KURIHARA NOBUYOSHI (1); YAMAGAMI JUN'ICHI (1); **TABATA
HARUHIKO** (1)
...ABSTRACT: for a balance engineer to operate the console sitting in the
center of two frontal **loudspeakers**. This paper describes the
development of a full digital mixing console and it's man...

?

File 9:Business & Industry(R) Jul/1994-2003/Dec 17
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File 813:PR Newswire 1987-1999/Apr 30
(c) 1999 PR Newswire Association Inc
? ds

Set	Items	Description
S1	1131839	(AUDIO OR STEREO) (3N) (SPEAKER??) OR LOUDSPEAKER? OR LOUD()- SPEAKER? OR SPEAKER??
S2	23163	(PIEZO? OR PIEZO?(3N)FILM?)
S3	3830	40CENTIMETER? OR (40 OR FORTY) () (CM OR CENTIMETER?)
S4	184	S3(5N) (SURFACE? OR SIZE)
S5	93393	HELMET?
S6	1753495	MOTORCYCLE? OR CYCLE?
S7	4520	(LOCAT? OR PLAC? OR NEAR OR OVER) (3N)EARS
S8	615	(BUILT()INTO OR EMBED? OR INSERT? OR MOLD? OR AFFIXED OR F- IXED) (5N)S5
S9	62186	VOICE(3N)QUALITY
S10	14	AU=(TABATA, H? OR TABATA H?)
S11	648	S1(S)S2
S12	0	S11(S)S5
S13	0	S11(S)S6(S)S7
S14	0	S1(S)S10
S15	0	S1 AND S10
S16	0	S11(S)S7
S17	15	S1(S)S8
S18	0	S17 AND S3
S19	0	S17(S)S7
S20	11	RD S17 (unique items)
S21	290	S1(3N)S2
S22	0	HONDA(3N)HELMET?(S)S1

20/3,K/1 (Item 1 from file: 15)

DIALOG(R)File 15:ABI/Inform(R)

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00867091 95-16483

Indy 500 merges technologies to improve racing

Fitzgerald, Michael

Computerworld v28n22 PP: 42 May 30, 1994

ISSN: 0010-4841 JRNL CODE: COW

WORD COUNT: 597

...TEXT: feed information to the pit crews this way and can communicate with the driver through **speakers** and microphones **built into** their **helmets**, though many crews do not do real-time processing during the race.

Things typically monitored...

20/3,K/2 (Item 1 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

09977335 Supplier Number: 90190639 (USE FORMAT 7 FOR FULLTEXT)

UK--the Oxford Sound Company has recently completed a slightly more esoteric contract compared to that of its mainstream installation business: it was contracted by i2i.net to replicate the aural and physical sensation for the Orange-Arrows F1 team within a full-size grand prix car--while it is stationary.

Pro Sound News Europe, v17, n7, p3(1)

July, 2002

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 125

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...a Yamaha DME32 digital mixing engine to create 12 audio channels, which are fed to **speakers embedded** in the crash **helmets** as well as a total of 24 low-frequency shaker transducers attached to the driver...

20/3,K/3 (Item 2 from file: 16)

DIALOG(R)File 16:Gale Group PROMT(R)

(c) 2003 The Gale Group. All rts. reserv.

07469957 Supplier Number: 62775765 (USE FORMAT 7 FOR FULLTEXT)

IDSA hands out awards in product design.

Renstrom, Roger

Plastics News, v12, n15, p1

June 12, 2000

Language: English Record Type: Fulltext

Document Type: Magazine/Journal; Trade

Word Count: 1825

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...trap of mature consumer electronics products. Materials include injection molded PS and PC, a stretchable **speaker** fabric and water-soluble paints. Koninklijke Philips Electronics NV is the parent

company of the...

...impact liner, injection molded polypropylene hanger parts, and an insert molded panel system with an **embedded** armature assembly. The **helmets** cost \$28-\$40, and hit the market in March 1999. Black & Decker Corp. of Towson...

20/3,K/4 (Item 3 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

02367689 Supplier Number: 43107847 (USE FORMAT 7 FOR FULLTEXT)
Joint ops seen as Navy's future
Navy News & Undersea Technology, v9, n26, pN/A
June 29, 1992
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 461

... Russian navy, and Washington sources confirm steps in that direction are under way.

The other **speaker** suggested creation of a naval force analogous to the U.N.'s famous "blue **helmets**," the peacekeeping force often **inserted** to maintain ceasefires.

If the Navy were to begin such operations, it would open opportunities ...

20/3,K/5 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

06324099 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Taking the plunge
SHARKS TO SHARE DIVING DUO'S MARRIAGE VOWS<\$>
Sarah Harris
WESTERN DAILY PRESS , WDP Late City ed, p8
July 08, 1999
JOURNAL CODE: FWDP LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 244

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... wedding guests, bridesmaids and the best man.

A sophisticated audio system with microphones and speakers **built into** diving **helmets** will enable the couple to hear each other and the minister .

The bride will wear...

20/3,K/6 (Item 2 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

06181043 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Great White wedding in a tank filled with sharks
BRISTOL EVENING POST , EP Greater Bristol ed
July 09, 1999
JOURNAL CODE: FBEP LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 130

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... both members of the Clifton Sub Aqua Club. An audio system with microphones and speakers **built into** diving **helmets** will enable the couple to hear each other and the minister during the ceremony at...

20/3,K/7 (Item 3 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

06113652 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Cash Boost For Children In Plan To Tackle Poverty
BIRMINGHAM POST, p5
July 08, 1999
JOURNAL CODE: FBMP LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 664

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... sharks, giant skate and other sea creatures.
A sophisticated audio system with microphones and speakers **built into** diving **helmets** will enable the couple to hear each other and the words of the officiating minister...

20/3,K/8 (Item 1 from file: 141)
DIALOG(R)File 141:Readers Guide
(c) 2003 The HW Wilson Co. All rts. reserv.

03561002 H.W. WILSON RECORD NUMBER: BRGA97061002 (USE FORMAT 7 FOR FULLTEXT)
Land Warrior.
Siuru, William.
Popular Electronics (1989) v. 14 (May 1997) p. 43-4+
WORD COUNT: 1241

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

... face helmet supports detectors, sensors, and displays. A microphone is integrated into the chinstrap and **speakers** are **built into** the **helmet** suspension system.

The **helmet** 's design truly makes a soldier's time in the field easier. For starters, the...

20/3,K/9 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

05738683 SUPPLIER NUMBER: 12176549
A restless loner on a custom bike: it's HAL on wheels; Steve Roberts works and lives in 'dataspace', operating a chain drive mainframe. (consultant and author lives and works on a computer-equipped bicycle)
Carroll, Paul B.
Wall Street Journal , Tue ed, col 4, pA1(W) pA1(E)
April 21, 1992

ISSN: 0193-2241

LANGUAGE: ENGLISH

RECORD TYPE: ABSTRACT

ABSTRACT: Steve Roberts, a 39-year-old author, **speaker** and computer consultant, travels the US on a 580-pound bicycle that carries an Apple...

...comes within 15 feet of the unattended bicycle. A computerized ultrasonic device in the customized **helmet** and eight keys **built into** the handlebars allow Roberts to work as he is riding. The bicycle is eight feet...

20/3,K/10 (Item 1 from file: 484)

DIALOG(R)File 484:Periodical Abs Plustext

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05864312 SUPPLIER NUMBER: 273741711 (USE FORMAT 7 OR 9 FOR FULLTEXT)

Stranger in a strange land

Stein, Joel

Bicycling (GBIK), v44 n1, p41-43

Feb 2003

ISSN: 0006-2073 JOURNAL CODE: GBIK

DOCUMENT TYPE: Feature

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 2122

TEXT:

... Dandenault is the director of sales for Rage, a Canadian manufacturer that makes a bike **helmet** with **speakers built into** the shell. "Yes, it's safe," he said, insisting that having kids use his helmet ...

20/3,K/11 (Item 2 from file: 484)

DIALOG(R)File 484:Periodical Abs Plustext

(c) 2003 ProQuest. All rts. reserv.

01719787 (USE FORMAT 7 OR 9 FOR FULLTEXT)

How's that again?

King, Peter

Sports Illustrated (GSPI), v79 n15, p79-80, p.2

Oct 11, 1993

ISSN: 0038-822X JOURNAL CODE: GSPI

DOCUMENT TYPE: News

LANGUAGE: English

RECORD TYPE: Fulltext; Abstract

WORD COUNT: 407

LENGTH: Short (1-9 col inches)

TEXT:

... named Randy May, who specializes in rock-concert acoustics, the system incorporates a wireless microphone **built into** the quarterback's **helmet** and four large **speakers** placed at each 15-yard line on either sideline. The quarterback activates the mike by pressing a button on his face mask, and his voice is transmitted to the **speakers**, which boom it out to the players on the field.

The league experimented with the...

?

20/9,K/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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00867091 95-16483

Indy 500 merges technologies to improve racing

Fitzgerald, Michael

Computerworld v28n22 PP: 42 May 30, 1994 CODEN: CMPWAB ISSN: 0010-4841

JRNL CODE: COW

DOC TYPE: Journal article LANGUAGE: English LENGTH: 1 Pages

WORD COUNT: 597

ABSTRACT: Increasingly, the racing teams on the Indianapolis 500 car circuit are trying to advance their cars through computer technology. For example, Bettenhausen Motorsports Inc. outfits driver Stefan Johansson's car with various standard sensors. The sensors feed information on a real-time basis to AT&T Corp. 3150 Safari notebook computers used by engineers in the pit.

TEXT: If it's hackers meeting gearheads, it must be the Indianapolis 500. The old Brickyard has always featured the latest and greatest in automobile technology, but more and more, the racing teams on the Indy car" circuit try to advance their cars through computer technology.

"It's used in every aspect of our sport now," said Clay Filson, a project manager at Rahal/Hogan Racing in Hilliard, Ohio.

Some of the teams buy their computer equipment, others have it given to them by major car companies in exchange for sponsorship or help in research, but they all use the equipment as extensively as they can.

SENSORS MONITOR CARS

A case in point is Bettenhausen Motorsports, Inc. The racing team, based in the shadow of the hallowed Brickyard at 109B Gasoline Alley in Speedway, Ind., outfits driver Stefan Johansson's car with various standard sensors. The sensors feed information on a real-time basis to AT&T Corp. 3150 Safari notebook computers used by engineers in the pit.

Virtually all Indy cars have built-in sensors that feed information to the pit crews this way and can communicate with the driver through **speakers** and microphones **built into** their **helmets**, though many crews do not do real-time processing during the race.

Things typically monitored by racing teams include fuel use, internal temperature and pressure and ride height.

USED FOR ADJUSTMENTS

"It all plays a lot bigger part than what you'd think in setting up the car," said Brent Harvey, data acquisition engineer at Bettenhausen. For example, the data pulled from the car can be used to adjust wheel loads and make the car "feel" better to the driver.

Much of the data that teams gather during the race gets crunched after the race. All the teams track a variety of information that they do not process in real time. In their trucks are heavy-duty desktop computers; they typically run their data modeling and in-depth analyses of race reports on these machines.

For instance, the Newman-Haas Racing Team, part-owned by actor Paul Newman, will pull down some 60M bytes of data during a typical race.

During pit stops, drivers such as Mario Andretti will get up dates on their cars based on data crunched on Compaq Computer Corp. Contura notebooks. But the team also does extensive data crunching off-line on DeskPro/Ms running a 33/66-MHz Intel Corp. I486DX2 chip. Newman-Haas Racing uses desktop systems to run everything from modeling programs and data analysis to its wind tunnel.

Filson's job at Rahal/Hogan Racing involves making sure the highly specialized racing cars get built on time. Rahal/Hogan uses Primavera Systems, Inc.'s Project Planner to run its car-building operations.

KNOWING WHEN NOT TO PANIC

"The benefit to us is now you know what your panic areas are going to be and what your critical deadlines are," Filson said.

He added that having the project on-line in a format that can create hypotheticals lets the team figure out what deadlines can slide a bit or whether there is time to try a different approach to a problem.

"It's hard to put a value on getting the panic out of a situation," Filson said.

Despite all the PC technology, the highest technology at this year's Indy 500 may well be a helmet. The new helmet, tentatively called the Super Speedway Shark from Simpson Race Products, has a fan-shaped attachment that helps keep the wind from pulling on the drivers' helmets.

SOME LIKE IT HOT

An Indy car may be one of the nastiest places on earth for electronics equipment: besides the vicious vibrations, the engine heat can reach up to 95 degrees Celsius.

THIS IS THE FULL-TEXT. Copyright CW Publishing Inc 1994

COMPANY NAMES:

Bettenhausen Motorsports

Compaq Computer Corp (DUNS:00-389-7733 TICKER:CPQ)

Rahal-Hogan Racing

AT&T Corp (DUNS:00-698-0080 TICKER:T)

GEOGRAPHIC NAMES: US

DESCRIPTORS: Automobiles; Racing; Information technology; Systems development; Advantages; Manycompanies

CLASSIFICATION CODES: 8680 (CN=Transportation equipment industry); 5240 (CN=Software & systems); 9190 (CN=United States)

...TEXT: feed information to the pit crews this way and can communicate with the driver through **speakers** and microphones **built into** their **helmets**, though many crews do not do real-time processing during the race.

Things typically monitored...

20/7,K/2 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

09977335 Supplier Number: 90190639 (THIS IS THE FULLTEXT)
UK--the Oxford Sound Company has recently completed a slightly more esoteric contract compared to that of its mainstream installation business: it was contracted by i2i.net to replicate the aural and physical sensation for the Orange-Arrows F1 team within a full-size grand prix car--while it is stationary.

Pro Sound News Europe, v17, n7, p3(1)

July, 2002

TEXT:

UK -- The Oxford Sound Company has recently completed a slightly more esoteric contract compared to that of its mainstream installation business: it was contracted by i2i.net to replicate the aural and physical sensation for the Orange-Arrows F1 team within a full-size grand prix car--while it is stationary. The audio system installed is controlled by a Yamaha DME32 digital mixing engine to create 12 audio channels, which are fed to **speakers embedded** in the crash **helmets** as well as a total of 24 low-frequency shaker transducers attached to the driver's seat. The car will be appearing at corporate events, where lucky 'drivers' will be able to experience 150mph grand prix speeds, without the risks.

COPYRIGHT 2002 CMP Information Limited

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(USE FORMAT 7 FOR FULLTEXT)

TEXT:

...a Yamaha DME32 digital mixing engine to create 12 audio channels, which are fed to **speakers embedded** in the crash **helmets** as well as a total of 24 low-frequency shaker transducers attached to the driver...

20/7,K/5 (Item 1 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

06324099 (THIS IS THE FULLTEXT)

Taking the plunge

SHARKS TO SHARE DIVING DUO'S MARRIAGE VOWS<\$>

Sarah Harris

WESTERN DAILY PRESS , WDP Late City ed, p8

July 08, 1999

THE best man and bridesmaids are keeping at a safe distance for Nick Anderson and Judi Boon's wedding - as the slippery guests have very sharp teeth.

For the couple of scuba-diving enthusiasts are taking the plunge in a bizarre wedding ceremony in a shark-filled tank.

They are making their vows and exchanging rings in front of a congregation of sharks, giant skates, moray eels and mantra rays.

Nick, aged 35, and Judi, 34, members of Clifton Sub Aqua Club in Bristol, are tying the knot six feet under water at Birmingham's National Sea Life Centre.

The officiating minister, Nigel Collins, who cannot swim, will lead the ceremony on July 15 from a walk through the underwater tunnel, along with the wedding guests, bridesmaids and the best man.

A sophisticated audio system with microphones and speakers **built into diving helmets** will enable the couple to hear each other and the minister .

The bride will wear a traditional - but weighted - gown over a conventional diving suit and Nick will wear a suit over his.

Award-winning underwater cameraman Alan James, a friend who helped organise the unique wedding, will be taking photographs.

Nick, an information technology manager, said: "It was scuba-diving that first brought us together.

"Our first date seven years ago was Judi's first dive."

The couple are drying off for a reception at a nearby pub.

Then they are jetting off for a diving honeymoon in the Maldives and Sri Lanka.

Copyright 1999 Western Daily Press. Source : World Reporter (Trade Mark) - FT McCarthy

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... wedding guests, bridesmaids and the best man.

A sophisticated audio system with microphones and speakers built into diving helmets will enable the couple to hear each other and the minister .

The bride will wear...

20/7,K/8 (Item 1 from file: 141)

DIALOG(R)File 141:Readers Guide

(c) 2003 The HW Wilson Co. All rts. reserv.

03561002 H.W. WILSON RECORD NUMBER: BRGA97061002 (THIS IS THE FULLTEXT)

Land Warrior.

Siuru, William.

Popular Electronics (1989) v. 14 (May 1997) p. 43-4+

LANGUAGE: English

WORD COUNT: 1241

TEXT:

It is the year 2003. Sergeant Comfort is on a peacekeeping patrol in a Middle Eastern country. Moving through hostile territory in near total darkness he can spot possible trouble through the Monocular Night Vision Sensor mounted on his helmet. Glancing in another direction he views another helmet-mounted display showing infrared images from the Thermal Weapon Sight (TWS), or pictures from the video camera mounted on his M4/M16 rifle. Clicking another control, he calls up a detailed digitized map on the display from the computer worn on his back. His precise position is pinpointed on the map by a Global Positioning System (GPS).

While patrolling he receives a call from another squad member, Corporal Best, over his Squad Radio. Best has spotted the location of a sniper who has fired a few shots at him. Not wanting to expose himself to fire at the sniper, Best "passes off" the target location determined by Best's weapon-mounted Laser Rangefinder/Digital Compass to Sergeant Comfort. Comfort locates the target on his display and fires a couple of rounds at the designated target. Even though he never sees the sniper, Comfort silences him.

In our little futuristic scenario, Comfort and his platoon are operating in dangerous territory. But soldiers like them will probably be confident that they will return safely from patrol. That is because these soldiers of the future will be equipped with the Land Warrior System that will be issued to U.S. soldiers around the year 2000. The Land Warrior System is currently being developed for the U.S. Army Soldier Command in Natick, MA by lead contractor Hughes plus Motorola, Honeywell, Battelle, Gentrex, Arthur D. Little, and several other subcontractors.

An Integrated Approach. While soldiers have used thermal sensors,

laser rangefinders, computers, night-vision equipment, and other advanced technologies for years, such devices were usually issued on a piecemeal basis. These anything-but-seamless bundles of technology added immensely to the soldier's workload (especially under the stress of combat), not to mention that they greatly increased the physical load he had to carry. All that is about to change.

The Land Warrior System is the first totally integrated, high-tech "fighting system" for the foot soldier. It integrates the latest in communications, sensor, computer, and materials technologies, as well as, wherever possible, off-the-shelf and commercial hardware to keep costs down.

The Framework. Physical damage is a main concern for a foot soldier. For this reason the Land Warrior System will feature a Protective Clothing and Individual Equipment Subsystem (PCIE) featuring modular body armor plus clothing, gloves, boots, and other similar items for protection against head-to-toe chemical and biological warfare. The PCIE is the platform that integrates all the pieces of the Land Warrior System.

A main component is the Load Carrying Equipment (LCE), which features a flexible frame allowing it to fit and function like part of the body. The unique design means one frame size fits all soldiers from the 5th to 95th percentile body size. The LCE's design allows redistribution of the load between the shoulder and waist to improve comfort even while the soldier is on the move. This frame serves as the support structure for the back-mounted Computer/Radio Subsystem.

Another great feature of the LCE is that various packs can be quickly attached to it for different missions; a soldier can therefore plan ahead for varying degrees of assault. Soldiers can even rapidly shed bulky components in an emergency. The frame and LCE also houses and protects the integrated wiring harness that ties together all the electronic hardware.

Heads Up. As hinted in the scenario at the beginning of this article, another key component of the Land Warrior System is the Integrated Helmet Assembly Subsystem (IHAS). Beside providing head protection, the open face helmet supports detectors, sensors, and displays. A microphone is integrated into the chinstrap and **speakers are built into the helmet suspension system.**

The **helmet's** design truly makes a soldier's time in the field easier. For starters, the helmet is made of lightweight materials to keep its weight down. Designers decided to go a step further, though, and added the unique suspension to provide a stable platform for the optical devices attached to it.

These optical devices include a Monocular Night Vision Sensor for 60 degrees field-of-view under nighttime conditions. The helmet's flat panel display presents images from the video camera and Thermal Weapon Sight mounted on the soldier's weapon; there are also four laser detectors located on the helmet that provide the back-mounted computer with a 360-degree "field-of-view." All these devices can be used even when NBC (nuclear/biological/chemical), BLEP (ballistic/laser eye protection), and other types of protective gear are donned.

Computer Backbone. As mentioned, the Land Warrior is based on a back-mounted computer. The Computer uses an IBM-compatible processor, PC-cards, and is setup for easy future upgrades. This backbone of the System controls various peripherals. Let's look at some of these.

First there's the Computer/Radio Subsystem (C/RS), which includes two radios: a Squad Radio for platoon-level communications and a Soldier Radio for communications with other soldiers within a squad. Both systems have the capability for both voice and data communications, are based on commercial Personal Communications Systems radio technology, and can have their communications encrypted for security.

Antennas for radios and the GPS are embedded in the load-carrying equipment frame. The very versatile C/RS also includes Mission Configurable Electronics and Removable Soldier Access and Mission Modules.

Access to the computer and radios is via the Remote Input Pointing Device or a[cont. on p.52] separate, hand-held QWERTY key-board. The C/RS can capture and transmit still-frame video.

At the heart of the Land Warrior is the Software System. This provides navigation, digitized map display, location databases, laser detection and warning, command and control, fire control, and communications capabilities.

Finally there is the Weapon Subsystem featuring a modified M4/M16. The Thermal Weapon Sight attached to the weapon can detect targets out to 1000 meters through fog, smoke, dust, and other obscurants, at day or night. The Laser Rangefinder/Digital Compass Assembly provides the ability to accurately and rapidly pass off targets for indirect fire support when linked to the computer, GPS, and radio. Being able to view outputs of these devices on the helmet displays means the wearer can "see" without exposing his position.

All these electronics are powered by a non-rechargeable battery that provides 12 hours of operation. Batteries can be quickly changed in the field where recharging of batteries is not really practical. However, rechargeable batteries are used during training. Even with all this sophistication, the Land Warrior's weaponry still includes a bayonet.

With the Land Warrior System, soldiers will always have answers to the questions, "Where Am I?, Where is the Enemy?," and "Where are other friendly troops?"

Added material

This soldier is equipped with the Land Warrior System. A computer, radios, GPS receiver, antennas, and batteries are carried in a compact backpack.

Here are some typical video and digital map displays available on the Land Warrior helmet-mounted display.

(USE FORMAT 7 FOR FULLTEXT)

TEXT:

... face helmet supports detectors, sensors, and displays. A microphone is integrated into the chinstrap and **speakers** are built into the **helmet** suspension system.

The **helmet**'s design truly makes a soldier's time in the field easier. For starters, the...

20/7,K/11 (Item 2 from file: 484)

DIALOG(R)File 484:Periodical Abs Plustext

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01719787 (THIS IS THE FULLTEXT)

How's that again?

King, Peter

Sports Illustrated (GSPI), v79 n15, p79-80, p.2

Oct 11, 1993

TEXT:

On Sept. 21, the day after Kansas City beat Denver 15-7 in a Monday night game amid a raucous din in Arrowhead Stadium, retired Army major Johnny Kai reported to league officials: "Those players couldn't produce. They were disoriented." Kai runs a company called Paradigm Training Institute, which studies the impact of loud noise on human functioning, and is consulting with the NFL on crowd noise. During that Chief-Bronco game Denver had seven false-start penalties--John Elway's linemen could only guess at his snap counts--and both teams played poorly. "The noise ruined our concentration," says Denver guard Dave Widell. "Imagine trying to do an intricate task with people screaming in your ear at the top of their lungs. That'll affect you."

Kai agrees. "The practice field doesn't resemble what players are going to experience in battle," he says. "When you're in a stadium and the noise is bigger than life, it consumes you, and you can't concentrate on your task."

In an attempt to rectify the situation, the league is experimenting with a device called the Audiblizer. Invented by a Californian named Randy May, who specializes in rock-concert acoustics, the system incorporates a wireless microphone **built into** the quarterback's **helmet** and four large **speakers** placed at each 15-yard line on either sideline. The quarterback activates the mike by pressing a button on his face mask, and his voice is transmitted to the **speakers**, which boom it out to the players on the field.

The league experimented with the Audiblizer in three preseason games and was pleased with the result. The new system differs from one tried as recently as the '92 preseason, which involved placing a transmitter in the quarterback's helmet and tiny speakers in his teammates' helmets. That setup bombed because the NFL couldn't get clear frequencies. During a preseason game in Minnesota some years back, a quarterback tried to broadcast his signals, and his teammates heard nothing but doctors and nurses being paged in a hospital near the Metrodome.

The next experiment with the Audiblizer will be at February's Pro Bowl. If it is successful, the league hopes to have the system in place in time for the opening of the 1994 season. Surprisingly, Widell is among the traditionalists who think the NFL ought to leave well enough alone. "Crowd noise is part of the experience, part of the home field advantage," he says. "I don't want to see technology creep into the game like that."

Copyright Time, Inc. 1993

TEXT:

... named Randy May, who specializes in rock-concert acoustics, the system incorporates a wireless microphone **built into** the quarterback's **helmet** and four large **speakers** placed at each 15-yard line on either sideline. The quarterback activates the mike by pressing a button on his face mask, and his voice is transmitted to the **speakers**, which boom it out to the players on the field.

The league experimented with the.

File 344:Chinese Patents Abs Aug 1985-2003/Nov
(c) 2003 European Patent Office
File 347:JAPIO Oct 1976-2003/Aug(Updated 031202)
(c) 2003 JPO & JAPIO
File 350:Derwent WPIX 1963-2003/UD,UM &UP=200381
(c) 2003 Thomson Derwent

? ds

Set	Items	Description
S1	81489	(AUDIO OR STEREO) (3N) (SPEAKER??) OR LOUDSPEAKER? OR LOUD()- SPEAKER? OR SPEAKER??
S2	2127	S1 AND (PIEZO? OR PIEZO?(3N)FILM?)
S3	1255	40CENTIMETER? OR (40 OR FORTY) () (CM OR CENTIMETER?)
S4	398	S3 AND (SURFACE? OR SIZE)
S5	8452	HELMET?
S6	270716	MOTORCYCLE? OR CYCLE?
S7	2433	(LOCAT? OR PLAC? OR NEAR OR OVER) AND EARS
S8	1726	(BUILT()INTO OR EMBED? OR INSERT? OR MOLD? OR AFFIXED OR F- IXED) AND S5
S9	74886	S1 NOT MAGNET?
S10	5769	VOICE AND QUALITY
S11	77998	IC=(H04R? OR A42B?)
S12	0	S2 AND S4
S13	0	S2 AND S3
S14	1	S2 AND S8
S15	5	(PIEZO? OR PIEZO?(3N)FILM?) AND S3
S16	5	S15 NOT S14
S17	1343	S2 AND S11
S18	1	S17 AND S7
S19	1	S18 NOT (S15 OR S14)
S20	60	(S5 OR S6) AND HEADSET
S21	20	S20 AND (ATTACH? OR EMBED? OR INSERT?)
S22	20	S21 NOT (S18 OR S15 OR S14)
S23	7	S22 AND AD=19991208:20031217
S24	13	S22 NOT S23
S25	0	(PIEZO? OR PIEZO?(3N)FILM?) AND HEADSET AND S8

14/3,K/1 (Item 1 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014181181 **Image available**
WPI Acc No: 2002-001878/200201
XRPX Acc No: N02-001392

Speaker used in helmet , has frame with opening-like film supporting
section, for holding piezo film speaker
Patent Assignee: HONDA GIKEN KOGYO KK (HOND); HONDA MOTOR CO LTD (HOND)
Inventor: KATAYAMA M; TABATA H
Number of Countries: 002 Number of Patents: 002
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
JP 2001086582 A 20010330 JP 99255330 A 19990909 200201 B
DE 10043913 A1 20010613 DE 1043913 A 20000906 200201

Priority Applications (No Type Date): JP 99255330 A 19990909

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2001086582	A		7	H04R-001/10	
DE 10043913	A1			H04R-017/00	

Speaker used in helmet , has frame with opening-like film supporting
section, for holding piezo film speaker

Abstract (Basic):

... The center portion of frame (202) has an opening-like film
supporting section, for holding piezo film speaker (201) along
its outer edge.

... An INDEPENDENT CLAIM is also included for helmet .
...

...In helmets .
...

...The piezo film speaker is stably fixed in desired position
within helmet .
...

...The figure shows the assembly drawing of speaker .
...

... Piezo film speaker (201

Title Terms: SPEAKER ;

?

16/3,K/1 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv.

07014619 **Image available**
ULTRASONIC LEVEL METER

PUB. NO.: 2001-242247 [JP 2001242247 A]
PUBLISHED: September 07, 2001 (20010907)
INVENTOR(s): HAYASHI EIJI
KATAOKA AKIRA
APPLICANT(s): YOKOGAWA ELECTRIC CORP
APPL. NO.: 2000-055854 [JP 200055854]
FILED: March 01, 2000 (20000301)

ABSTRACT

... high in short range measurement having the overlapping possibility of the residual wave of a **piezoelectric** element 20 and an echo wave. As a result, the amplification degree of the echo wave is limited within a specified range in the short range of about 40 cm -70 cm with the overlapping possibility of the residual wave and echo wave. There is...

16/3,K/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

013455415 **Image available**
WPI Acc No: 2000-627358/200060
XRPX Acc No: N00-464785

Method of laying subsurface moistening network

Patent Assignee: VOLG AGRIC ACAD (VLAG-R)
Inventor: BOROVIOI E P; PYNDAK V I
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2148313	C1	20000510	RU 99103037	A	19990216	200060 B

Priority Applications (No Type Date): RU 99103037 A 19990216

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
RU 2148313	C1		A01G-025/06	

Abstract (Basic):

... laying distributing-and-moistening network; forming lower mark of each slit as mirror pattern of **piezometric** pressure along moistening network, so that slit depth at the leading and tail ends of ...
...distance making 0.6-0.7 of its length from leading end - it is 35- 40 cm . Such laying of subsurface moistening network provides for uniform pressure along slits.

16/3,K/3 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

012917766 **Image available**
WPI Acc No: 2000-089602/200008
XRAM Acc No: C00-025083

XRPX Acc No: N00-070553

Acoustic munition, especially non-lethal defense and security munition, for firing from mortar

Patent Assignee: TDA ARMEMENTS SAS (TDAA-N)

Inventor: BROUSSOUX D; TARAYRE P

Number of Countries: 025 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 971200	A1	20000112	EP 99401658	A	19990702	200008 B
FR 2781044	A1	20000114	FR 988685	A	19980707	200011
EP 971200	B1	20021113	EP 99401658	A	19990702	200282
DE 69903885	E	20021219	DE 603885	A	19990702	200307
			EP 99401658	A	19990702	

Priority Applications (No Type Date): FR 988685 A 19980707

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 971200 A1 F 8 F42B-012/36

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

FR 2781044 A1 F42B-012/36

EP 971200 B1 F F42B-012/36

Designated States (Regional): DE GB IT SE

DE 69903885 E F42B-012/36 Based on patent EP 971200

Abstract (Basic):

... g) a **piezoelectric** sensor (7) coupled to a nozzle igniter, to
the energy source and to the cutting...

...g. a diameter compatible with a 70-80 mm mortar and a length of about
40 cm).

...

... **Piezoelectric** sensor (7)

16/3,K/4 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012439022 **Image available**

WPI Acc No: 1999-245130/199921

XRAM Acc No: C99-071760

XRPX Acc No: N99-182446

Large format printing using ink-jet printer

Patent Assignee: POLITRUST AG (POLI-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19743804	A1	19990408	DE 1043804	A	19971002	199921 B

Priority Applications (No Type Date): DE 1043804 A 19971002

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

DE 19743804 A1 14 B41J-002/005

Abstract (Basic):

... a continuous web, or it is fed as sheets. The ink jet printing
heads are **piezo** printing heads, arranged in groups, secured to a
mounting with positioning units (16). A number...
...for printing on large format surfaces in sizes of DIN A3 in widths of

about 40 cm , on materials such as webs of paper, cardboard, textiles or plastics. It can also be...

16/3,K/5 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

009923968 **Image available**
WPI Acc No: 1994-191679/199423
XRAM Acc No: C94-087711

Wideband ultrasonic transducer - can be easily adapted to cover different frequency bands

Patent Assignee: WHITAKER CORP (WHIT-N)
Inventor: TODA M
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5321332	A	19940614	US 92975467	A	19921112	199423 B

Priority Applications (No Type Date): US 92975467 A 19921112

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5321332	A		20	H01L-041/08	

...Abstract (Basic): An ultrasonic transducer (10) comprises a first (12) and second (14) **piezoelectric** polymer **films** , joined end-to-end by tape (15) and rolled together to form a scroll. The...

...upper layer (20) and a lower layer (22) of thickness 0.0028 cm and length 40 cm , and each layer has a thin electrode layer deposited over both sides to form electrode...

?

19/3,K/1 (Item 1 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014122019 **Image available**
WPI Acc No: 2001-606231/200169
XRPX Acc No: N01-452373

Loudspeaker arranging method in passenger cabin of aircraft, involves
arranging closed volume type flat panel speaker and low frequency
dynamic loudspeaker in trim liner of passenger cavity

Patent Assignee: NOISE CANCELLATION TECHNOLOGIES (NOIS-N)

Inventor: EATWELL G P; MACHACEK S L; PARRELLA M J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6181797	B1	20010130	US 99228767	A	19990109	200169 B

Priority Applications (No Type Date): US 99228767 A 19990109

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6181797	B1	12	H04B-001/00	

Loudspeaker arranging method in passenger cabin of aircraft, involves
arranging closed volume type flat panel speaker and low frequency
dynamic loudspeaker in trim liner of passenger cavity

Abstract (Basic):

... Closed volume type flat panel **speaker** is provided in trim
liner of passenger cabin. One low frequency dynamic **loudspeaker** is
provided in cabin. Both **speakers** produce high quality **audio** close
to passenger **ears**. A flat panel **speaker** comprises a panel (24) on
which **piezoelectric** elements (25) are mounted and the panel is
attached to the frames by screws. The...

... An INDEPENDENT CLAIM is also included for **loudspeaker** system
...

... **Placing speakers** close to the listener improves perceived sound
quality. Low frequency dynamic **speaker** provides all the bass required
for high quality audio, since low frequencies are not attenuated...

... **Piezoelectric** elements (25

Title Terms: **LOUDSPEAKER** ;

International Patent Class (Additional): H04R-025/00

?

24/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

013310063 **Image available**
WPI Acc No: 2000-482000/200042
XRPX Acc No: N00-358287

Protective helmet headset for motor cycle riders has microphone boom and earpiece mounted to side panel and the socket

Patent Assignee: OOLTEWAH MFG INC (OOLT-N)
Inventor: DOSS R L; LASHLEY D G; SMITH C F
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6075857	A	20000613	US 97927192	A	19970911	200042 B

Priority Applications (No Type Date): US 97927192 A 19970911

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6075857	A	7	H04M-001/00	

Protective helmet headset for motor cycle riders has microphone boom and earpiece mounted to side panel and the socket

Abstract (Basic):

... Protective **helmet** (10) has earpiece receiver housings (16,18) mounted to side panels (12) and conductors (20...
... For motor **cycle** riders...

...Provides **helmet headset** of modular construction by providing microphone **attached** to boom removably, as earpiece housing is mounted to side panels and earpiece with adaptor...

...The figure shows partial sectional perspective view of **helmet headset**

...

...Protective **helmet** (10

...Title Terms: **HELMET** ;

24/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

012786315 **Image available**
WPI Acc No: 1999-592541/199951
XRPX Acc No: N99-437211

Radio system headset for attachment to safety helmets

Patent Assignee: SCHMIDT MOBILE KOMMUNIKATION GMBH M (SCHM-N)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 29914672	U1	19991021	DE 99U2014672	U	19990821	199951 B

Priority Applications (No Type Date): DE 99U2014672 U 19990821

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 29914672	U1	15	H04R-001/10	

Radio system headset for attachment to safety helmets

Abstract (Basic):

... The arrangement includes a listening device (4) and a microphone (3) **attached** to a carrier. There is an **attachment** section (2) for **attaching** the set to the safety **helmet** 's (20) fixing straps (18,19). An **attachment** element, associated with the ear straps of the **helmet** , is arranged below the listening device. A second **attachment** element, associated with the chin strap, is located above the microphone.
... For **attachment** to safety **helmets** .
...

...The new type of **headset** enables simple **attachment** to, and removal from, a safety **helmet** , with accurate positioning and fixing...

...The figure shows a schematic lateral view of a safety **helmet** with a **headset** mounted on it...

... **Attachment** device (2...

... **Helmet** (20

...Title Terms: **ATTACH** ;

24/3,K/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012722352 **Image available**

WPI Acc No: 1999-528464/199945

XPX Acc No: N99-391450

Cordless telephone apparatus for hands-free operation

Patent Assignee: ISENSEE D (ISEN-I)

Inventor: ISENSEE D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19802659	A1	19990729	DE 1002659	A	19980124	199945 B

Priority Applications (No Type Date): DE 1002659 A 19980124

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 19802659	A1	3	H04M-001/00	

Abstract (Basic):

... The telephone apparatus has a **headset attached** to a headband or incorporated in a **helmet** , coupled to a base station, connected to the telephone network, via a cordless IR or radio link, with a selection keyboard associated with the **headset** or incorporated in the base station. The operating voltage for the **headset** is provided by a battery which is recharged when the **headset** is coupled to the base station in its rest position.

24/3,K/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

012522784 **Image available**

WPI Acc No: 1999-328890/199928

XRPX Acc No: N99-246779

Clamp for fixing a headset to a helmet

Patent Assignee: ELNO SOC NOUV (ELNO-N)

Inventor: ABRAHAM P; TERZI C

Number of Countries: 025 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 917832	A1	19990526	EP 98402837	A	19981116	199928 B
FR 2771262	A1	19990528	FR 9714671	A	19971121	199928
EP 917832	B1	20030319	EP 98402837	A	19981116	200325
DE 69812275	E	20030424	DE 612275	A	19981116	200335
			EP 98402837	A	19981116	

Priority Applications (No Type Date): FR 9714671 A 19971121

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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EP 917832	A1	F 10	A42B-003/30	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI

FR 2771262	A1		A42B-003/30
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EP 917832	B1	F	A42B-003/30
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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI
LU MC NL PT RO SE SI

DE 69812275	E		A42B-003/30	Based on patent EP 917832
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Clamp for fixing a headset to a helmet

Abstract (Basic):

... A cylindrical slide is placed over the head band (22) of the
headset . This locates in the base (36) of the clip (16) so as to be
held...

...place while allowing some rotational adjustment. The clip pushes over
the rear edge of the **helmet** and then screws tightly in place (34).
... Military **helmets** .
...

...Allows simple **attachment** of hands free communications devices to
standard **helmets** .
...

...The figure shows a side view of a **helmet** with **headset** attached .
...

... **Helmet** (10,12,14...

... **Helmet** rear edge (16...

... **Headset** (20...

... **Helmet** inner surface (32

...Title Terms: **HELMET** .

24/3,K/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

011980740 **Image available**

WPI Acc No: 1998-397650/199834

XRPX Acc No: N98-309384

Bicycle headset assembly - has bowl that supports race with ball bearing with compression member acting on steerer tube attached to the race

Patent Assignee: CHEN C (CHEN-I)

Inventor: CHEN C

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5775709	A	19980707	US 96658023	A	19960604	199834 B

Priority Applications (No Type Date): US 96658023 A 19960604

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5775709	A		8	B62K-021/18	

Bicycle headset assembly...

...has bowl that supports race with ball bearing with compression member acting on steerer tube attached to the race

...Abstract (Basic): The headset assembly includes a race (63) mounted on a ball bearing (62) rotatably mounted in an...

...USE - For use on a push cycle .

...Title Terms: ATTACH ;

24/3,K/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

011638787 **Image available**

WPI Acc No: 1998-055695/199806

XRPX Acc No: N98-044198

Fixing assembly for helmet headset - has elongated tongue piece attached to perforated body piece of headset by threading through holes

Patent Assignee: KITEK INSTMSTO OY AB (KITE-N)

Inventor: LEPPAELAHTI K

Number of Countries: 019 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 817529	A2	19980107	EP 97660069	A	19970612	199806 B
FI 9602673	A	19971229	FI 962673	A	19960628	199812
FI 100848	B1	19980313	FI 962673	A	19960628	199817
US 5790681	A	19980804	US 97791899	A	19970131	199838

Priority Applications (No Type Date): FI 962673 A 19960628

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 817529	A2 E	9	H04R-001/10		

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

FI 100848	B1	A42B-003/30	Previous Publ. patent FI 9602673
FI 9602673	A	A42B-003/30	
US 5790681	A	H04R-025/00	

Fixing assembly for helmet headset - ...

...has elongated tongue piece attached to perforated body piece of headset by threading through holes

...Abstract (Basic): The fixing assembly comprises a body piece (13), a microphone (14) attached to the body piece, an earphone (17) attached to the body piece, and cabling (13,11) for tacking signals to the earphone and from the microphone. An elongated tongue piece (19) is attached to the body piece in the immediate vicinity of the earphone. The body piece includes...

...piece so that the tongue piece can be threaded into the holes for fixing the headset into a helmet .

...ADVANTAGE - Headset assembly can be attached to interior of any helmet irrespective of its interior outfit provided helmet interior includes sweatband or similar band-like element
...Title Terms: HELMET ;

24/3,K/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

010980421 **Image available**
WPI Acc No: 1996-477370/199647
XRPX Acc No: N96-402518

Electrical connector for telephone headset - has two shells contg. interlocking latching finger and aperture and angled blade contacts and spring contacts, respectively, for low insertion force.

Patent Assignee: ACS WIRELESS INC (ACSW-N)
Inventor: GRANT J L; SORENSON G
Number of Countries: 004 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9632759	A2	19961017	WO 96US4539	A	19960403	199647 B
WO 9632759	A3	19961121	WO 96US4539	A	19960403	199702
US 5816841	A	19981006	US 95419892	A	19950411	199847

Priority Applications (No Type Date): US 95419892 A 19950411

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9632759	A2	E	35	H01R-013/26	
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Designated States (National): DE GB JP

WO 9632759	A3			H01R-013/26	
------------	----	--	--	-------------	--

US 5816841	A			H01R-013/627	
------------	---	--	--	--------------	--

Electrical connector for telephone headset - ...

...interlocking latching finger and aperture and angled blade contacts and spring contacts, respectively, for low insertion force.

...Abstract (Basic): ADVANTAGE - Provides reliable low-voltage connection over many mating cycles , while being easy to connect and release simply by feel...

...Title Terms: INSERT ;

24/3,K/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

010661755 **Image available**

WPI Acc No: 1996-158709/199616

XRPX Acc No: N96-133048

Helmet for aircraft crew - has protective light visor filter on brackets, and twin conical intercom head-set with acoustic ear pieces and microphone holder, and shock absorbed in helmet forehead portion

Patent Assignee: ZVEZDA MECH ENG WKS (ZVEZ-R)

Inventor: KLYUSHKIN S E; KUROCHKIN M I; MOISEEV M M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 1702616	C	19950820	SU 4759766	A	19891120	199616 B

Priority Applications (No Type Date): SU 4759766 A 19891120

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
RU 1702616	C	5	B64D-010/00	

Helmet for aircraft crew...

...conical intercom head-set with acoustic ear pieces and microphone holder, and shock absorbed in helmet forehead portion

...Abstract (Basic): This aircraft crew's protective helmet has a headpiece (1) with a shock absorber (2) on which are fixed soft replaceable...

...a turning device with a control handle (8) are fixed on the headpiece (1). The headset (12) consists of the two conical sides of a frontal element (23) attached to the sides' upper part...

...ADVANTAGE - For crew of light engined, cargo, and long distance aircraft. Improved performance of the helmet . Bul. 23/20.8.95...

Title Terms: **HELMET ;**

24/3,K/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009442920 **Image available**

WPI Acc No: 1993-136437/199317

XRPX Acc No: N93-104050

Orientation process and appts. for orienting solid objects - transmitting light beam with reference direction coded data from reference position to detector attached to object

Patent Assignee: SEXTANT AVIONIQUE (SEXT-N)

Inventor: LACH P; MIGOZZI J

Number of Countries: 010 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 539264	A1	19930428	EP 92402772	A	19921009	199317 B
CA 2081274	A	19930426	CA 2081274	A	19921023	199328
FR 2683036	A1	19930430	FR 9113219	A	19911025	199330
TW 213977	A	19931001	TW 92109708	A	19921203	199351
US 5313054	A	19940517	US 92963403	A	19921016	199419
EP 539264	B1	19960605	EP 92402772	A	19921009	199627.

DE 69211287 E 19960711 DE 611287 A 19921009 199633
EP 92402772 A 19921009

Priority Applications (No Type Date): FR 9113219 A 19911025

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 539264	A1	F	7	G01D-005/26	
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CA 2081274	A	F		G01B-011/26	
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US 5313054	A		6	H01J-040/14	
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EP 539264	B1	F	8	G01D-005/26	
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Designated States (Regional): BE DE FR GB IT NL SE

DE 69211287	E			G01D-005/26	Based on patent EP 539264
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FR 2683036	A1			G01B-011/00	
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TW 213977	A			G01C-021/00	
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... transmitting light beam with reference direction coded data from
reference position to detector attached to object

...Abstract (Basic): following manoeuvres and orientation parameters of
solid in reference position, in visor system on pilot **helmet** enabling
him to see images of projected reticule at infinity superimposed with
external scenery...

...Abstract (Equivalent): up target to weaponry. Detected images correspond
to coordinate system of aircraft rather than of **headset**.

(
...Title Terms: **ATTACH** ;

24/3,K/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2003 Thomson Derwent. All rts. reserv.

009307779 **Image available**

WPI Acc No: 1993-001215/199301

XRPX Acc No: N93-000777

**Bicycle headset to connect to frame of bicycle - has inner tube fitted
on outer surface of fork stem, outer tube coaxially surrounding inner
tube and ball bearing to allow relative rotation**

Patent Assignee: SHIMANO INC (SHIB)

Inventor: NAGANO M

Number of Countries: 006 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 520383	A1	19921230	EP 92110583	A	19920623	199301 B
US 5272936	A	19931228	US 92901837	A	19920622	199401
EP 520383	B1	19950222	EP 92110583	A	19920623	199512
DE 69201464	E	19950330	DE 601464	A	19920623	199518
			EP 92110583	A	19920623	
JP 3266315	B2	20020318	JP 92167400	A	19920625	200222

Priority Applications (No Type Date): JP 91152901 A 19910625

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 520383	A1	E	13	B62K-021/06	
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Designated States (Regional): DE FR GB IT

US 5272936	A		11	B62K-021/18	
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EP 520383	B1	E	13	B62K-021/06	
-----------	----	---	----	-------------	--

Designated States (Regional): DE FR GB IT

DE 69201464	E			B62K-021/06	Based on patent EP 520383
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JP 3266315	B2		8	B62K-019/32	Previous Publ. patent JP 5178255
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Bicycle headset to connect to frame of bicycle...

...Abstract (Basic): The **headset** for a bicycle has a inner tube (16) which is fitted on an outer surface...

...also restrict the relative axial movement between the inner and outer tubes. They are all **attached** to the handle stem (13) by an inclined can (14) which is radially displaceable by...

...USE/ADVANTAGE - **Headset** for rotatable **attachment** of both stem bicycle eliminates trouble of adjusting ball contact pressure...

...Abstract (Equivalent): A **headset** for rotatably **attaching** a fork stem (1) to a head pipe (3) of a frame of a bicycle...

...said outer tube (15) and said bearing means (19) are assembled into an integral unit **attachable** to and detachable from said head pipe (3) and said fork stem (1...

...Abstract (Equivalent): The **headset** includes an inner tube fitted on an outer surface of the fork stem, with an...

...The inner tube, outer tube and ball bearing are assembled into an integral unit **attachable** to and detachable from the head pipe and fork stem...

...USE - For rotatably **attaching** a fork stem to a head pipe of a frame of a **cycle** or the like...

24/3,K/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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007646775 **Image available**

WPI Acc No: 1988-280707/198840

XRAM Acc No: C88-124899

XRPX Acc No: N88-213106

Divers headset communication assembly - has ends of internal cables and cable whip potted in insulation

Patent Assignee: UK SEC FOR DEFENCE (MINA)

Inventor: HICKS R J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2203017	A	19881005	GB 876656	A	19870320	198840 B

Priority Applications (No Type Date): GB 876656 A 19870320

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
GB 2203017	A	11		

Divers headset communication assembly...

...Abstract (Basic): An assembly comprises a connector for linking earphone and microphone **headset** cables (4-6) inside a **helmet** to a cable whip (7) outside the **helmet** , and a second connector for linking the whip to the umbilical cable. The first connector is an assembly penetrating the **helmet** wall (10), with insulation encapsulating (12) the ends of the cables and whip so that electrical connections penetrate **helmet** in electrically insulating and watertight manner...

...a protruding boss (14) at one end to fit tightly through a hole in the **helmet** frame. The cable ends are pref. **inserted** into a cup-shaped section and then potted...

...ADVANTAGE - Ensures electrical integrity of the **headset** and prevents water penetration...

24/3,K/12 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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007624299 **Image available**

WPI Acc No: 1988-258231/198837

XRFX Acc No: N88-196030

Optical information transmission system for aircraft pilot - projects information, e.g. contained on photographic transparency, onto periscope mounted on pilot's helmet

Patent Assignee: MESSERSCHMITT-BOLKOW-BLO (MESR)

Inventor: SCHARFENBE G

Number of Countries: 006 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 3712287	C	19880915	DE 3712287	A	19870410	198837 B
EP 286832	A	19881019	EP 88103686	A	19880309	198842
US 4866229	A	19890912	US 88178474	A	19880407	198946

Priority Applications (No Type Date): DE 3712287 A 19870410

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
-----------	------	-----	----	----------	--------------

DE 3712287	C		4		
------------	---	--	---	--	--

EP 286832	A	G			
-----------	---	---	--	--	--

Designated States (Regional): CH DE FR GB LI

US 4866229	A		5		
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... **projects information, e.g. contained on photographic transparency, onto periscope mounted on pilot's helmet**

...Abstract (Basic): projector (2) that directs the output to a receiver (7) that is mounted on a **helmet** (1). The projector may be used to transmit images from cards or maps. A component...

...Abstract (Equivalent): or data are transmitted by an essentially stationary transmitter and received by a mobile receiver **attached** to an operator's **helmet** or **headset**.

...Title Terms: **HELMET**

24/3,K/13 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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004554300

WPI Acc No: 1986-057644/198609

XRFX Acc No: N86-042156

Communication arrangement for person in confined area - has junction box with sockets for rope connection, headset, handset or microphone, and on-off switch

Patent Assignee: DIDS BURY ENG LTD (DIDS-N)

Inventor: WALKER A H J

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2163625	A	19860226	GB 8520864	A	19850820	198609 B
GB 2163625	B	19880127				198804

Priority Applications (No Type Date): GB 8422949 A 19840911; GB 8421223 A 19840821; GB 8520864 A 19850820

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
GB 2163625	A		5		

... has junction box with sockets for rope connection, headset , handset or microphone, and on-off switch

...Abstract (Basic): worker (10) has a body harness (11) coupled to a junction box (12). The safety **helmet** (13) used has a battery powered **headset** comprising earphones (14) and a throat microphone (15) or alternatively a boom microphone (15a). To...

...to the confined space worker (10), i.e. body harness with a junction box (12) **attached** , the rope (16) being **attached** to the junction box as is the controller's battery powered **headset** (22...

?

File 348:EUROPEAN PATENTS 1978-2003/Nov W05

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031211,UT=20031204

(c) 2003 WIPO/Univentio

? ds

Set	Items	Description
S1	36310	(AUDIO OR STEREO) (3N) (SPEAKER??) OR LOUDSPEAKER? OR LOUD() - SPEAKER? OR SPEAKER??
S2	37617	(PIEZO? OR PIEZO? (3N) FILM?)
S3	7788	40CENTIMETER? OR (40 OR FORTY) () (CM OR CENTIMETER?)
S4	277	S3 (5N) (SURFACE? OR SIZE)
S5	3573	HELMET?
S6	281205	MOTORCYCLE? OR CYCLE?
S7	911	(LOCAT? OR PLAC? OR NEAR OR OVER) (3N) EARS
S8	363	(BUILT() INTO OR EMBED? OR INSERT? OR MOLD? OR AFFIXED OR F- IXED) (5N) S5
S9	2422	VOICE (3N) QUALITY
S10	8184	IC=(H04R? OR A42B?)
S11	0	S1 (S) S2 (S) S3
S12	1035	S1 (S) S2
S13	1	S12 (S) S7
S14	1	S12 (S) S5
S15	1	S14 NOT S13
S16	0	S2 (S) S8
S17	23	S12 (S) S6
S18	0	S17 (S) S9
S19	1	S17 AND S10
S20	1	S19 NOT (S14 OR S13)

13/3,K/1 (Item 1 from file: 348)

DIALOG(R) File 348:EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

01062786

Piezo speaker for improved passenger cabin audio systems

Piezolautsprecher fur verbesserte Passagierkabinen-Audiosysteme

Haut-parleur piezoelectrique pour des systemes audio ameliores destines a des cabines de passagers

PATENT ASSIGNEE:

NOISE CANCELLATION TECHNOLOGIES, INC., (1140124), 1025 West Nursery Road,
, Linthicum, MD 21090-1203, (US), (Applicant designated States: all)

INVENTOR:

Eatwell, Graham Paul, 26 East Drive, Caldecote, Cambridge CB3 7NZ, (GB)

Machacek, Steven L., 8326 Jepson Place, Alexandria, Virginia 22309, (US)

Parrella, Michael J., 40 Kellog Hill Road, Weston, Connecticut 06883,
(US)

LEGAL REPRESENTATIVE:

Maguire, Peter Albert et al (33475), Maguire Boss, 5 Crown Street, St.

Ives, Cambridgeshire PE27 5EB, (GB)

PATENT (CC, No, Kind, Date): EP 936842 A1 990818 (Basic)

APPLICATION (CC, No, Date): EP 99108305 960925;

PRIORITY (CC, No, Date): US 533048 950925

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 872157 (EP 96933882)

INTERNATIONAL PATENT CLASS: H04R-025/00; H04B-001/00; H03B-029/00;

H04R-017/00

ABSTRACT WORD COUNT: 61

NOTE:

Figure number on first page: 2

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9933	737
SPEC A	(English)	9933	3946
Total word count - document A			4683
Total word count - document B			0
Total word count - documents A + B			4683

...SPECIFICATION dynamic loudspeaker within the passenger cabin.

In the above method, only one low frequency dynamic **loudspeaker** need be placed within the passenger cabin, with said one low frequency dynamic **loudspeaker** being **placed** away from the **ears** of seated passengers.

The **piezoelectric** driven flat **speakers** may be comprised of **piezoelectric** elements that drive selected areas of the trim or

?

15/3,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00550089

HIGH NOISE COMMUNICATION SYSTEM

SYSTEME DE COMMUNICATION POUR ENVIRONNEMENT TRES BRUYANT

Patent Applicant/Assignee:

THE GOVERNMENT OF THE UNITED STATES OF AMERICA as;represented by THE
SECRETARY OF THE NAVY,

Inventor(s):

DOWNES Edward Frank,
VENTURELLA Kevin M,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200013462 A1 20000309 (WO 0013462)

Application: WO 99US9063 19990427 (PCT/WO US9909063)

Priority Application: US 98144683 19980831

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU

LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA

UG UZ VN YU ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM

AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM

GA GN GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 4746

Fulltext Availability:

Claims

Claim

... The system of Claim 1 wherein the means for picking
up voice sounds is a **piezoelectric** contact transducer.

Claim 6. The system of Claim 1 wherein said ambient noise
filter is...

...1 wherein said means for

supplying voice inputs to said user's ear is a **piezo** -ceramic
speaker .

Claim 13. The system of Claim 1 wherein said means for
supplying voice inputs to...

...Claim 14 wherein said microphone

assembly comprises: a mechanical ambient noise filter; and
a thin **film piezoelectric** microphone having two opposite
faces, said microphone embedded in said filter except for one
face...

...fifth layer of said high-density rubber-like material adjacent
said fourth layer; and

a **piezoelectric** transducer for picking up user voice
sounds, said transducer fitted in said lined cavity such is a
surface-laminated **piezoelectric - film** sound transducer
connected as a microphone.

Claim 22: The system of Claim 21 wherein said...

...noise filter.

Claim 23. The microphone assembly of claim 20 wherein said
transducer is a **piezoelectric - film** sound transducer connected
as a microphone.

Claim 24. The system of Claim 22 wherein said...

...Woo@@

33

00

00

FIGo 4

40 32

.4 T

Pusl TO

TALK BUTTON k@,@ **HELMET**

SHELL

212

INTERNATIONAL SEARCH REPORT International application No.

PCT/US99/09063

A. CLASSIFICATION OF SUBJECT...

?

20/3,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00237385 **Image available**

LOUDSPEAKER

HAUT-PARLEUR

Patent Applicant/Assignee:

TRANSDUCER VALLEY INC,
NOPONEN Seppo,

Inventor(s):

NOPONEN Seppo,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9311649 A1 19930610

Application: WO 92FI314 19921124 (PCT/WO FI9200314)

Priority Application: FI 915525 19911125

Designated States: CA JP NO US AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT
SE

Publication Language: English

Fulltext Word Count: 4869

Main International Patent Class: H04R-007/04

International Patent Class: H04R-09:06 ...

... H04R-01:02

Fulltext Availability:

Detailed Description

Detailed Description

... magnetic flux is attached. The controller;3 is fixed to the controller base of the **loudspeaker** casing I by means of the flexible base 23 in such a manner that the...

...example,

Instead of the above electromagnetic principle, the controller 3 can function on a capacitative, **piezoelectric** or magnetostrictive principle. The **loudspeaker** may incorporate a supply transformer 26, located in a space under the lid 27. Apart...

...air pressure is significant, more than 10t, the pressure-excesses and deficiencies at different half **cycles** will cause non-linearity in the form of the resulting acoustic half-waves,

The sensitivity...the diaphragm 2 will reduce motional sensitivity but a large volume of air in the **loudspeaker** casing 1 will increase motional sensitivity. Motional sensitivity is also a function of frequency relative...

...in contact with the rear surface 211 of the diaphragm 2 is adjusted in the **loudspeaker** according to the invention by means of a special chamber system 6, The chamber system...

?